

Appl. No. 10/815,472  
Amdt. dated 7/03/2006  
Reply to the Office Action of 4/03/2006

### **REMARKS**

Reexamination and reconsideration of this application is requested. By this Response, Claims 1, 12, and 13 were amended, Claim 6 was cancelled, and new Claims 21-23 were added. No new matter was added by this Response with amendment. After this Response, Claims 1-5, 7-13 and 21-23 remain pending in this application. Reconsideration and allowance of the pending claims in view of the above amendments and the following remarks are respectfully requested.

#### **Claim 6 Was Not Rejected In The Office Action**

While the front cover of the present Office Action indicated that Claims 1-13 were rejected, the Detailed Action rejected only Claims 1-5 and 7-13, and did not reject Claim 6. Applicants believe that dependent Claim 6 recites in allowable form.

#### **Rejection under 35 U.S.C. §112, second paragraph**

The Examiner rejected Claims 12 and 13 under 35 U.S.C. 112, second paragraph, as being indefinite because of using language that defines the narrower range within the broader range.

Applicants have amended these Claims 12-13, and have added two new respective claims, i.e., new Claims 22-23, to separate the two specified ranges into two sets of claims. new Claim 22 corresponds to amended Claim 12, and new Claim 23 corresponds to amended Claim 13.

Therefore, since the amended Claims 12-13 and new Claims 22-23 all set forth the specified ranges in clear, definite, and particular language, Applicants believe that these claims recite in allowable form in view of the amendment and the remarks above. Applicants request that the rejection under 35 U.S.C. 112, second paragraph, of Claims 12-13 be withdrawn.

#### **Supplemental Information Disclosure Statement**

Attached herewith please find an Information Disclosure Statement with a 1449 List form to formally identify and list on the face of any patent that issues from this application the

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reference US 2002/0089395 that was originally disclosed by Applicants in the instant specification on page 2, lines 20-22. Applicants kindly request that the Examiner make formal the Examiner's consideration of this reference by returning the 1449 List form with the cited reference initialed by the Examiner. Thank you.

### **Larson III, et al. (U.S. Patent No. 6,927,651) Improper Reference**

The patent reference U.S. Patent No. 6,927,651 by Larson III, et al., has a filing date of May 12, 2003, which is after the priority date of April 1, 2003 of the instant patent application. Therefore, the U.S. Patent No. 6,927,651 by Larson III, et al. is an improper reference to cite in support of a rejection of the claims of the present patent application. Applicants respectfully request that the Examiner reconsider the rejection of Claim 7, which was based on this cited reference.

### **New Claims**

The Applicants have added new Claims 21-23. Support for these new claims is found in the original Claims 1, 7, 12 and 13. No new matter has been added. Independent Claim 21 is a combination of Claims 1 and 7. Dependent Claims 22-23 are supported by the original claims 12 and 13.

### **Rejection under 35 U.S.C. §102(b)**

The Examiner rejected Claim 1-5 and 7-13 under 35 U.S.C. 102(b) as being anticipated by Bradley et al. (EP 1 058 383 A2) (Hereinafter "Bradley"). The Examiner cites 35 U.S.C. § 102(b) and a proper rejection requires that a single reference teach (i.e., identically describe) each and every element of the rejected claims.<sup>1</sup>

First of all, Applicants have amended independent Claim 1 to include the language of dependent Claim 6 which is now cancelled. No new matter was added. Further, dependent

<sup>1</sup> See MPEP §2131 (Emphasis Added) "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim."

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Claim 12 was amended to clearly and precisely recite the "active element has a thickness of between 0.5 and 5  $\mu\text{m}$ " and dependent Claim 13 was amended to clearly and precisely recite "the electrodes have a thickness of less than 1  $\mu\text{m}$ ". No new matter was added by these amendments. Lastly, as has been discussed above, new Claims 21-23 have been added. Support for these new claims is found in the original Claims 1, 7, 12 and 13. No new matter was added.

With regards to the teachings of Bradley, the Examiner has concluded that Bradley do not teach or anticipate the active element of a first resonator being made of a material that is different from that of the active element of a second resonator. Amended Claim 1, and all dependent claims depending therefrom, respectively, recite "the active element of a first resonator being made of a material that is different from that of the active element of a second resonator." Therefore, Applicants believe that Bradley do not teach or anticipate independent Claim 1, and dependent Claims 2-5, 7-13, and new dependent Claims 22-23 which all depend from independent Claim 1.

Further, with respect to the teachings of Bradley, please note that Bradley discloses that the resonators of a group of resonators share the same piezoelectric layer and that the resonant frequencies of each resonator of the group are determined by defining the thickness of at least one of the electrodes. In particular, please see Bradley, paragraph [0074], in column 17, lines 10-52, discussing the varying of the thickness (or the weighted thickness) of the electrodes. Consequently, Bradley teaches away from the presently claimed invention. According to the present invention, as recited for amended Claim 1, the active element of a first resonator is made in a material different of the material of the active element of a second resonator. Additionally, according to another aspect of the present invention, as recited for dependent Claim 7 and for independent Claim 21, the active element of a first resonator is of a thickness different from the thickness of the active element of a second resonator. As a consequence, one of ordinary skill in the art, in view of the teachings of Bradley, would be motivated to use a means different from the one of the presently claimed invention.

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Therefore, in view of the amendments and remarks above, Applicants believe that since Bradley do not teach, anticipate, or suggest, inter alia, the presently claimed "the active element of a first resonator is made in a material different of the material of the active element of a second resonator" and "the active element of a first resonator is of a thickness different from the thickness of the active element of a second resonator", the rejection of Claim 1-5 and 7-13 under 35 U.S.C. 102(b) as being anticipated by Bradley has been overcome. The Examiner should withdraw the rejection of these claims. Further, Applicants believe that new Claims 21-23 also recite in allowable form and request that the Examiner allow these claims.

**Rejection under 35 U.S.C. §103(a)**

The Examiner rejected Claim 7 under 35 U.S.C. 103(a) as being as being unpatentable over Bradley et al. (EP 1 058 383 A2) (Hereinafter "Bradley") in view of Larson III, et al. (U.S. Patent No. 6,927,651) (Hereinafter "Larson"). The Examiner cites 35 U.S.C. §103. The Statute expressly requires that obviousness or non-obviousness be determined for the claimed subject matter "as a whole," and the key to proper determination of the differences between the prior art and the present invention is giving full recognition to the invention "as a whole."

The Larson patent document, as has been discussed above, is an improper reference to cite in support of a rejection of the claims of the present patent application. This is because the effective date of Larson is its filing date of May 12, 2003, while the priority date of the present patent application is April 1, 2003, which is Before the effective date of the Larson reference.

Bradley, as has been discussed above, teaches away from the presently claimed invention. Bradley discloses that the resonators of a group of resonators share the same piezoelectric layer and that the resonant frequencies of each resonator of the group are determined by defining the thickness of at least one of the electrodes. In particular, please see Bradley, paragraph [0074], in column 17, lines 10-52, discussing the varying of the thickness (or the weighted thickness) of the electrodes.

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Therefore, as recited for dependent Claim 7 and for independent Claim 21, since the active element of a first resonator is of a thickness different from the thickness of the active element of a second resonator, and since this is not taught, anticipated, or suggested by Bradley, and further since Larson is not a proper reference to cite in support of the rejection, Applicants believe that Claim 7 and new Claim 21 both recite in allowable form. The Examiner should withdraw the rejection of Claim 7 under 35 U.S.C. 103(a) and should allow this claim. Further, the Examiner should allow new independent Claim 21.

### Conclusion

The foregoing is submitted as full and complete response to the Official Action mailed April 3, 2006, and it is submitted that Claims 1-5, 7-13, and new Claims 21-23 are in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested. Allowance of Claims 1-5, 7-13, and 21-23 is earnestly solicited.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless Applicants have argued herein that such amendment was made to distinguish over a particular reference or combination of references.

Applicants acknowledge the continuing duty of candor and good faith to disclose information known to be material to the examination of this application. In accordance with 37 CFR § 1.56, all such information is dutifully made of record. The foreseeable equivalents of any territory surrendered by amendment are limited to the territory taught by the information of record. No other territory afforded by the doctrine of equivalents is knowingly surrendered and everything else is unforeseeable at the time of this amendment by the Applicants and the attorneys.

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If the Examiner believes that there are any informalities that can be corrected by Examiner's amendment, or that in any way it would help expedite the prosecution of the patent application, a telephone call to the undersigned at (561) 989-9811 is respectfully solicited.

The present application, after entry of this amendment, contains fifteen (15) claims, including two (2) independent claims. Applicants have previously paid for twenty (20) claims including five (5) independent claims. Applicants, therefore, believe that an additional fee for claims amendment is currently not due.

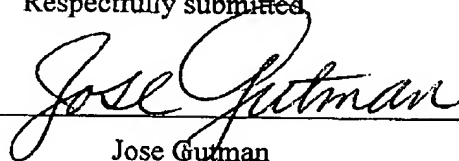
The Commissioner is hereby authorized to charge any fees that may be required or credit any overpayment to Deposit Account 50-1556.

In view of the preceding discussion, it is submitted that the claims are in condition for allowance. Reconsideration and re-examination are requested.

Respectfully submitted,

Date: July 3, 2006

By:



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